

**REMARKS**

Claims 1-15 are all the claims pending in the application and have been amended to address each of the issues raised by the Examiner (claim 3 has been canceled). For the following reasons, it is submitted that the application is in condition for allowance.

**Claim Rejections - 35 U.S.C. §§ 112 (second paragraph) and 101**

Claims 1-15 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing for to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Related to this rejection, claim 1 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any step involved in the process.

Applicant submits that the claims, as amended, overcome these rejections. With respect to claim 14, Applicant notes that the range of ratios between the outer diameter and inner diameter of the screws claimed in claim 14 preferably apply to the entire length of the screws. Nothing in the wording of the claim 14 excludes that such ratio may vary from point to point. The claim merely asserts that such ratio is within the claimed range. Hence, the rejection of claim 14 appears as deprived of any foundation such that withdrawal of this rejection is requested.

**Claim Rejections 35 U.S.C. § 103**

Claims 1-8, 10-12, and 15 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Satas, Don. Handbook of Pressure-Sensitive Adhesive Technology in view of Brinkmann et al. (USP 5,358,693). Claims 9 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Satas in view of Plamthottam et al. (USP 4,906,421). Claim 14 is rejected

under 35 U.S.C. § 103 (a) as being unpatentable over Satas and Brinkmann et al. in view of

Utracki, L.A. Polymer Blends Handbook, Volumes 1-2. Springer - Verlag, 2002.

For the following reasons, Applicant respectfully traverses these rejections.

As amended, claim 1 recites:

*A process for producing an adhesive composition,  
comprising the following steps:*

*providing first and second two-screw extruders in  
series with one another, the first extruder being located  
upstream of the second extruder;*

*supplying rubber, a hydrocarbon resin and a  
solvent to the first extruder such that the rubber and  
hydrocarbon resin are dissolved in the solvent; and*

*controlling the temperature of the extruders such  
that the temperature at the outlet of each of the extruders is  
less than the boiling point of the solvent.*

Thus, the process of claim 1 relates to a process for preparing an adhesive formulation which comprises rubber, an hydrocarbon resin having adhesion imparting properties and a solvent by the use of at least two two-screw extruders arranged in series. In particular, such process allows to extrude an adhesive formulation which is dissolved in a solvent, thus solving the problem of rendering easy the successive spreading thereof on a support.

Such a process is not at all obvious in view of the combination of the two main references Satas and Brinkmann.

Satas merely discloses the components of an adhesive formulation and does not provide any suitable indication in respect of the production process thereof, which can be assimilated to the presently claimed process.

On the other hand, Brinkmann discloses a method and an arrangement for producing a rubber base compound and a rubber end compound in a single stage for vehicle tires, drive belts, conveyor belts and industrial rubber products in general (*see e.g.* abstract and col. 1, lines 11-15). In particular, the three examples of formulation A, B and C disclosed in Brinkmann refer to end rubber compounds for a passenger car tire tread, a truck tire tread and an automotive profile, respectively. The rubber compositions mentioned by Brinkmann are thus intended for the production of tri-dimensional articles with a defined shape and have nothing to do with the adhesive formulations of the present invention comprising rubber, an hydrocarbon resin having adhesion imparting properties and a solvent.

Hence, Brinkmann is not at all relevant to the technical field of the present invention, concerning the production of rubber-based adhesive formulations. In view of such difference and in the absence among the ingredients of the compounds considered by Brinkmann of adhesive ingredients, it is also plain that Brinkmann can provide not even an hint for modifying the process of Satas into a continuous process, which is suitable for producing an adhesive formulation which is easily spreadable on a support.

Such conclusion is even confirmed by a passage of Brinkmann cited by the Examiner himself, (see the last full paragraph of page 6) according to which "the extruders also have a plurality of devolatilizing openings where the volatile constituents, such as the solvent, are conducted away from the extrudate". Hence, this passage of Brinkmann clearly teaches against the present invention according to which the solvent must remain within the extruded formulation (thanks to the fact that the temperature at the outlet of each extruder is less than the boiling point of the solvent) in order to render easy the successive spreading of the formulation on a support. It is respectfully submitted that there is no basis for alleging - as the Examiner does

- that the skilled in the art may "obviously" act on the opposite way, namely adding the volatile constituents.

Similar arguments militate against the relevance of the further secondary reference cited by the Examiner, namely Plamthottam et al.

Plamthottam et al too, indeed, clearly teaches away from the process of the present invention. E.g. in the abstract of Plamthottam et al, it is indeed explicitly stated that "in the extruder, solvent is removed in one or more solvent removal units, and a solvent free composition is extruded as the carrier layer". The compositions which are extruded according to the process of Plamthottam et al and the present invention, respectively, are thus markedly different. As above indicated, the process of the present invention is explicitly intended to extrude an adhesive formulation which is dissolved in a solvent, thus solving the problem of rendering easy the successive spreading thereof on a support.

### **Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111  
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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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